

**Dunragit WWTW,  
Dumfries and Galloway:  
Archaeological Watching Brief**

Data Structure Report

by Katie Sludden

issued 20<sup>th</sup> May 2008



**Rathmell**

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Archaeology Ltd

## Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Institute of Field Archaeology's Standards and Policy Statements and Code of Conduct.

Signed ..... Date .....

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked ..... Date .....

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## 1 Overview

- 1.1 This Data Structure Report presents the findings of a programme of archaeological monitoring commissioned by Scottish Water Solutions in respect of the construction of a new sewer pipeline in Dunragit, Dumfries and Galloway (centred NGR NX 152 571). The route of the pipeline runs from the present Sewage Works at NGR: NF 15241 57154 south to an outfall into the sea at NGR: NX 15366 56597. The archaeological works, carried out from the 11<sup>th</sup> December 2007 to the 12<sup>th</sup> May 2008, were designed to mitigate the impact on any archaeological remains in the development area.
- 1.2 The findings presented below inform on the character of any archaeologically significant features exposed by the development works and the responses adopted to them. The character of such further stages of work will need to be agreed with Dumfries and Galloway Council and the Dumfries and Galloway Archaeology Service, although our recommendations are presented within the Conclusion section.
- 1.3 The development had the potential to impact on archaeological remains for its entire extent. However, the potential for archaeology to be present varies along the line and an assessment of this potential had already been undertaken by the Dumfries & Galloway Council Archaeology Service. Specifically their SMR (Sites and Monuments Record) search has identified two differing areas of potential. This is reproduced in Figure 1 with the actual Pipeline route illustrated. Section A to B is adjacent to *MDG13422 Droughduil* where the archaeological potential is considered sufficiently high to warrant continuous archaeological monitoring. In contrast Section B to C is in proximity to *MDG1236 & MDG1225 Findspots* giving a lower archaeological potential hence a reduced response was required with post-topsoil stripping inspection.
- 1.4 Rathmell Archaeology Ltd was appointed by Scottish Water to act with regard to archaeological matters. Prior to the commencement of works a Method Statement was produced in agreement with Dumfries & Galloway Council which defined the extent of works to be undertaken.

## 2 Project Works

- 2.1 The programme of works commenced with archaeological monitoring of a topsoil strip for the compound beside the present works. Works then monitored the topsoiling of the pipeline route under two separate protocols. The programme of works comprised five separate 'callouts' to the site at Dunragit. These took place between the 11<sup>th</sup> December 2007 and the 12<sup>th</sup> May 2008, each visit usually comprised a single day of monitoring or inspection.
- 2.2 The first section of the pipeline, from A to B, was in proximity to the Scheduled Ancient Monument boundary of Droughduil and required a continuous watching brief to be undertaken. The nature of the known archaeological resource in that vicinity suggested the possibility of artefacts being recovered within this area so the monitoring of topsoil strip was stipulated within the terms of the Method Statement.
- 2.3 The second section of the pipeline, from B to C, holding relatively less potential for archaeological structures only required an intermittent watching brief. Here the line was inspected after machining to topsoil the line was complete to confirm the presence or absence of archaeology.
- 2.4 All of the exposed features were investigated to determine their archaeological significance. All works were conducted in accordance with the Institute of Field Archaeology's Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.



Figure 1: Pipeline route with two sections of watching brief marked. A to B is full watching brief area whereas B to C is intermittent watching brief area.

### 3 Findings: SMR Search

- 3.1 A preceding archaeological search of the Sites and Monuments Record was undertaken by Dumfries & Galloway Council Archaeology Service on behalf of Scottish Water Solutions. This search identified two archaeological sites that have the potential to be impacted upon by the development.
- 3.2 An extract from this assessment identified these sites as:

*MDG13422 Droughduil NX 152 570*

*A series of indeterminate cropmarks have been revealed by aerial photography scattered across a field 100m north of Droughduil School. An unusual series of markings in the SE corner of the field form what may be the cropmark of a square barrow, with straight sides measuring approximately 6m in length, although no central burial pit is visible.*

*These ambiguous cropmarks, including the suggested square barrow, are located in a low lying area of ground that other aerial photos suggest has been drained. It is also in the area or very close to the course of a gas pipeline installed through this area in the mid 1990's.*

*MDG1236 + MDG1225 Findspots  
c. NX 152 566*

*Two Neolithic stone axes, one from Drochduil, and the other, found east of Drochduil, are in Glasgow Art Galleries and Museum.*

*In 1945 a Bronze Age Collared Urn containing a cremation was found on the crest of a low ridge in the area now occupied by the buildings of No.3 Holding, Droughduil. A flint scraper was found at the same spot.*

### 4 Findings: Monitoring

- 4.1 The programme of works commenced on the 11<sup>th</sup> December with archaeological monitoring of a topsoil strip for a compound to be built beside the present works. This area was immediately south of the present works extends to 44.5m long by 20.2 m wide. Two flints; one scraper (find number 001) and one flake (find number 002) were recovered from the topsoil, context (001), during this monitoring. The topsoil was on average 200-300mm deep across the compound strip area. There were no archaeological features encountered.
- 4.2 A test pit was placed inside the sewage works on the 18<sup>th</sup> March 2008 in order to assess the archaeological potential of that area before the construction of a new humus tank there. The sediments were relatively deep, up to 1.3m until natural subsoil was encountered, and therefore had the potential for the survival of archaeological features. The surface was made up of a degraded tarmac surface and made-up ground, (006), which extended across the sewage works up to a depth of 700mm. A brown peat deposit (002) existed below this at 700mm and was up to 1.3m deep where natural subsoil was met. This consisted of a grey mixed gravel and clay deposit (005). On the 20<sup>th</sup> March 2008 this area was stripped, extending 10m by 10m, for the new tank. There were no archaeological structures discovered nor artefacts recovered and the aforementioned sediments remained consistent with the findings of the test-pit.
- 4.3 The southern section of the pipeline (B to C), required only an intermittent watching brief, was subsequently visited on the 14<sup>th</sup> April 2008. The topsoil was relatively shallow at 200-300mm deep sitting on fine yellow sand (See Fig. 2e). There were no archaeological structures visible within this section of the pipeline cut and no artefacts were recovered.



Fig. 2a: Post ex strip of compound



Fig. 2b: Sample section of compound strip



Fig. 2c: General shot of test pit.



Fig. 2d: Pre Ex of B-C pipe cut



Fig. 2e: Sample section of B-C pipe cut



Fig. 2f: General shot of B-C pipe cut



Fig. 2g: Pre-ex of A-B pipe cut



Fig. 2h: Sample section of A-B strip





Fig. 2i: General shot of A-B strip



Fig. 2j: Post ex of A-B strip.



- 4.4 The northern section of the pipeline (A to B), located west of the access road was striped on the 12<sup>th</sup> May 2008 from NGR NX15260 57092 to NX 15261 56936, which is around 200m of stripping at 4m wide. The topsoil was a grey brown sandy humic deposit (001) and was on average 400mm deep sitting on mixed yellow sand (003) and grey clay natural subsoils (004). The topsoil was striped before any further ground reduction. The area was striped again to reveal a clean surface but again no archaeological structures were encountered nor were any artefacts recovered.
- 4.5 All of the exposed features were investigated to determine their archaeological significance. All works were conducted in accordance with the Institute of Field Archaeology's Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.
- 4.6 No other features were uncovered during the excavation of the pipeline and only modern material (ie post 1850AD drainage) was noted during the works. These comprised red ceramic drains associated with modern glazed white earthenware and modern glass but were very infrequent and insubstantial.

## 5 Discussion

- 5.1 The archaeological monitoring works were undertaken from the 11<sup>th</sup> December 2007 to the 12<sup>th</sup> May 2008. No archaeological features were noted within the areas stripped for the compound, the humus tank nor the pipe trenches. No significant archaeological features were disturbed during the course of the archaeological monitoring.
- 5.2 Two worked flints were recovered from the topsoil from the compound strip. These finds indicate activity in the vicinity but no associated features were found within the scope of this project.
- 5.3 Several sites of archaeological or historical significance were noted in the search of the SMR conducted by Dumfries and Galloway Council. By using this information it was possible to prevent disturbance to known sites along the proposed route of the pipeline. Archaeological monitoring in several places along the excavation for the pipeline did not reveal any new archaeological deposits.

## 6 Conclusion

- 6.1 A programme of archaeological monitoring was commissioned by Scottish Water Solutions in respect of the construction of a new sewer pipeline in Dunragit, Dumfries and Galloway (centred NGR NX 15236 57127). The archaeological works were carried out on an intermittent basis from the 11<sup>th</sup> December 2007 to the 12<sup>th</sup> May 2008.
- 6.2 The archaeological works failed to identify any features of significant archaeological worth and recovered only two unstratified struck flints from topsoil. Consequently, we recommend that there are no grounds to consider archaeology a further material consideration within the development. Hence we consider that no further archaeological mitigation works are necessary and no post-excavation analysis of the site of material recovered from the site is required.
- 6.3 The appropriateness and acceptability of our recommendations rests with the Dumfries and Galloway Archaeology Service and Dumfries and Galloway Council. Confirmation that the above recommendations are acceptable should be sought from these bodies.

## Appendix 1: Registers

### Context Register

Context No.	Area/ Trench	Type	Description	Interpretation
001	N/A	Topsoil	Crumbly grey brown humic silt with low grasses up to 500mm deep but on average 400mm deep. Consistent across site.	Topsoil
002	Test pit in sewage works	Deposit	Mid brown organic peat from 700mm- 1.3m deep. Some roots and wood inclusions.	Peat- Natural
003	N/A	Subsoil	Yellow fine sand, found as slightly banked material i.e. wherever there is a rise in the ground. Found in relation to shallower topsoil. On average found at a depth of up to 400mm.	Natural subsoil
004	N/A	Subsoil	Grey smooth moderately compact clay found at a depth of up to 600mm. Mainly in wetter lower ground near peat deposits.	Natural subsoil.
005	Test pit in sewage works	Subsoil	Mixed grey clay and gravels, relatively wet found under 002 at a depth of up to 1.3m.	Natural subsoil.
006	Test pit in sewage works	Surface	Tarmacadam and made-up ground extending to 700mm deep across sewage works. Degraded.	Modern working surface.

### Photographic Register

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
1	1	1	1	1	1	Working Shot of Compound Strip	NW	11/12/07
2	1	2	1	2	2	Working Shot of Compound Strip	SW	11/12/07
3	1	3	1	3	3	Working Shot of Compound Strip	SW	11/12/07
4	1	4	1	4	4	Close up of trench section	SW	11/12/07

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
5	1	5	1	5	5	Working Shot of Compound Strip	NE	11/12/07
6	1	6	1	6	6	Working Shot of Compound Strip	E	11/12/07
7	1	7	1	7	7	Broken drain with mound in background	NE	11/12/07
8	1	8	1	8	8	Broken drain with mound in background	N	11/12/07
9	1	9	1	9	9	General Shot of site from road	N	11/12/07
10	1	10	1	10	10	Post ex of striped compound	W	11/12/07
11	1	11	1	11	11	Post ex of striped compound	NW	11/12/07
12	1	12	1	12	12	General shot of proposed field for pipe-line	NE	11/12/07
13	1	13	1	13	13	Post ex of striped compound	SE	11/12/07
14	1	14	1	14	14	General shot of proposed field for pipe-line	S	11/12/07
15	1	15	1	15	15	General shot of proposed field for pipe	N	11/12/07
16	1	16	1	16	16	General shot of proposed field for pipe	N	11/12/07
17	1	17	1	17	17	General shot of proposed field for pipe	S	11/12/07
18	1	18	1	18	18	Old ruin in forest south of compound	S	11/12/07
19	2	1	2	1	1	Gen Shot Sewage Works	E	18/03/08
20	2	2	2	2	2	Gen Shot Sewage Works	N	18/03/08
21	2	3	2	3	3	Gen Shot Sewage Works	N	18/03/08
22	2	4	2	4	4	Gen Shot Sewage Works	N	18/03/08
23	2	5	2	5	5	Working Shot Trench 1	NW	18/03/08
24	2	6	2	6	6	Working Shot Trench 1	NW	18/03/08
25	2	7	2	7	7	Concrete Base of Humus Tank	W	18/03/08
26	2	8	2	8	8	Concrete Base of Humus Tank	W	18/03/08
27	2	9	2	9	9	Working Shot of E facing Section	NE	18/03/08
28	2	10	2	10	10	Working Shot	S	18/03/08

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
29	2	11	2	11	11	E facing Section	SE	18/03/08
30	2	12	2	12	12	E facing Section	SE	18/03/08
31	2	13	2	13	13	E facing Section	SE	18/03/08
32	2	14	2	14	14	E facing Section with scale	E	18/03/08
33	2	15	2	15	15	E facing Section with scale	E	18/03/08
34	2	16	2	16	16	Gen Shot Trench 1	SE	18/03/08
35	2	17	2	17	17	Gen Shot Trench 1	SW	18/03/08
36	3	1	3	18	18	Gen Shot Trench 1	NW	18/03/08
37	3	2	3	19	19	Gen Shot Trench 1	NE	18/03/08
38	3	3	3	20	20	E facing Section trench 1	E	18/03/08
39	3	4	3	21	21	Gen Shot Trench 1	W	18/03/08
40	3	5	3	22	22	W facing Section trench 1	W	18/03/08
41	3	6	3	23	23	S Facing Section trench 1	SW	18/03/08
42	3	7	3	24	24	S Facing Section trench 1	SW	18/03/08
43	3	8	3	25	25	S Facing Section trench 1	S	18/03/08
44	1	9	1	1	-	General shot of WB are	SW	20/03/08
45					1	Area Stripped for new Humus Tank	SW	14/04/08
46					2	General shot of pipe cut	S	14/04/08
47					3	Sample section of pipe cut	WSW	14/04/08
48					4	General shot of pipe cut	S	14/04/08
49					5	General backfilled shot of pipe cut	N	14/04/08
50					1	Pre-Ex of N End	NE	12/05/08
51					2	Pre-Ex of N End	N	12/05/08
52					3	Pre-Ex of N End	N	12/05/08
53					4	Pre-Ex of S End	SSE	12/05/08
54					5	Pre Ex of S End	SSE	12/05/08
55					6	General shot of the Gas pipeline	E	12/05/08
56					7	Pre ex from south end	S	12/05/08
57					8	The burn to the east	W	12/05/08
58					9	Pre ex	S	12/05/08
59					10	Working shot	S	12/05/08
60					11	Post ex from 100m (measured from s end) looking south	N	12/05/08
61					12	Working shot	NE	12/05/08
62					13	Working shot close up	NE	12/05/08

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
63					14	Working shot from gas pipe	S	12/05/08
64					15	Post ex from gas pipe	S	12/05/08
65					16	Sample section at south end	E	12/05/08
66					17	Sample section at 100m from south end	W	12/05/08
67					18	General post ex shot	NE	12/05/08
68					19	Post ex at 100m	N	12/05/08
69					20	Post ex at 100m	N	12/05/08
70					21	Sample section at N end	E	12/05/08
71					22	Post ex from N end	N	12/05/08
72					23	Post ex of N end	NE	12/05/08
73					24	Post ex of landscape from bund	N	12/05/08
74					25	Post ex of landscape from bund	NNW	12/05/08

*Finds Register*

Find No.	Area/ Trench	Context No.	Material Type	Description	Excavator	Date
001	Compound strip	001	Flint	Scraper	KS	11/12/2007
002	Compound strip	001	Flint	Flake	KS	11/12/2007

*GPS Survey (accuracy +/- 3m)*

Point ID	Description	NX	BNG
001	North Strip- NE Corner	15260	57092
002	North Strip- NW Corner	15256	57033
003	North Strip- SE Corner	15261	56936
004	North Strip- SW Corner	15266	56937
005	Along North Strip	15262	57016
006	Along North Strip	15257	57016

<b>Point ID</b>	<b>Description</b>	<b>NX</b>	<b>BNG</b>
007	Along North Strip	15260	57073
008	Along North Strip	15257	57072
009	South Strip where pipeline ends	15366	56597
010	Sewage works where pipeline starts	15241	57154

## Appendix 2: Discovery &amp; Excavation in Scotland

<b>LOCAL AUTHORITY:</b>	Dumfries and Galloway
<b>PROJECT TITLE/SITE NAME:</b>	Dunragit WWTW
<b>PARISH:</b>	Old Luce
<b>NAME OF CONTRIBUTOR:</b>	Katie Sludden
<b>NAME OF ORGANISATION:</b>	Rathmell Archaeology Limited
<b>TYPE(S) OF PROJECT:</b>	Watching Brief
<b>NMRS NO(S):</b>	NX15NE.93
<b>SITE/MONUMENT TYPE(S):</b>	Cropmark, Square Barrow
<b>SIGNIFICANT FINDS:</b>	Two flints; one flake, one scraper.
<b>NGR (2 letters, 6 figures)</b>	NX 152 571
<b>START DATE (this season)</b>	11 <sup>th</sup> December 2007
<b>END DATE (this season)</b>	12 <sup>th</sup> May 2008
<b>PREVIOUS WORK (incl. DES ref.)</b>	None
<b>PROPOSED FUTURE WORK:</b>	None
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (may include information from other fields)	<p>A programme of archaeological monitoring was commissioned by Scottish Water Solutions in respect of the construction of a new sewer pipeline in Dunragit, Dumfries and Galloway (centred NGR NX 15236 57127). The archaeological works were carried out from the 11<sup>th</sup> December 2007 to the 12<sup>th</sup> May 2008.</p> <p>The archaeological works failed to identify any features of significant archaeological worth and recovered only two unstratified surface flints.</p>
<b>PROJECT CODE:</b>	RA07057
<b>SPONSOR OR FUNDING BODY:</b>	Scottish Water Solutions
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	10 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
<b>E MAIL:</b>	contact@rathmell-arch.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	Report to Dumfries & Galloway Archaeology Service and archive to National Monuments Record of Scotland.



## Contact Details

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